

AMENDMENTS TO THE CLAIMS

Please amend Claims 1, 20 and 21; and add new Claims 22-33 as follows.

LISTING OF CLAIMS

1. (currently amended) A damper comprising:
 - a pressure tube forming a working chamber;
 - a pressurized gas being the only damping medium disposed within said working chamber;
 - a first piston disposed within said working chamber, said first piston dividing said working chamber into an upper working chamber and a lower working chamber;
 - a source for said pressurized gas separate from said working chamber in selective communication with said working chamber;
 - a sensor monitoring an operating condition associated with said damper;
 - a pressure control unit in communication with said sensor and said source for said pressurized gas for continuously controlling the pressure of said pressurized gas disposed within said upper and lower working chambers of said working chamber based upon said operating condition monitored by said sensor to control damping characteristics of said damper;
 - a first electronic valve for controlling flow of said pressurized gas through said first piston; and
 - a valve control unit in electrical communication with said first electronic valve, said valve control unit controlling opening and closing of said first electronic valve, said valve control unit operating independently from said pressure control unit.

2.-5. (cancelled)

6. (withdrawn) The damper according to Claim 1 wherein said source for said pressurized gas comprises:

a reservoir of said pressurized gas in communication with said working chamber;

a first valve disposed between said reservoir and said upper working chamber;

a second valve disposed between said reservoir and said lower working chamber; and

a valve operating unit in communication with said first and second valves, said valve operating unit controlling opening and closing of said first and second valves.

7. (cancelled)

8. (withdrawn) The damper according to Claim 6 further comprising a third valve disposed within said reservoir, said third valve dividing said reservoir into an upper reservoir and a lower reservoir, said first valve being in communication with said upper reservoir, said second valve being in communication with said lower reservoir, said third valve being in communication with said valve operating unit, said valve operating unit controlling opening and closing of said third valve.

9. (cancelled)

10. (withdrawn) The damper according to Claim 1 wherein said source for said pressurized gas comprises:

a first reservoir of said pressurized gas in communication with said upper working chamber;

a first valve disposed between said first reservoir and said upper working chamber;

a second reservoir of gas in communication with said lower working chamber;

a second valve disposed between said second reservoir and said lower working chamber; and

a valve operating unit in communication with said first and second valves, said valve operating unit controlling opening and closing of said first and second valves.

11. (cancelled)

12. (previously presented) The damper according to Claim 1 further comprising:

a second piston disposed within said upper working chamber, said second piston defining an intermediate working chamber disposed between said upper and lower working chambers;

a second electronic valve for controlling flow of said pressurized gas through said second piston; and

said valve control unit in electrical communication with said second electronic valve, said valve control unit controlling opening and closing of said second electronic valve.

13.-19. (cancelled)

20. (currently amended) A damper comprising:

a pressure tube forming a working chamber;

a pressurized gas being the only damping medium disposed within said working chamber;

a first piston disposed within said working chamber;

a second piston disposed within said working chamber, said first and second pistons dividing said working chamber into an upper working chamber, an intermediate working chamber and a lower working chamber;

a first electronic valve for controlling the flow of said gas through said first piston;

a second electronic valve for controlling flow of said gas through said second piston;

a valve control unit in electrical communication with said first and second electronic valves, said valve control unit controlling opening and closing of said first and second electronic valves;

a sensor monitoring an operating condition associated with said damper;

a source for said pressurized gas separate from said working chamber in selective communication with said working chamber; and

a pressure control unit in communication with said source of said pressurized gas for continuously controlling pressure of said pressurized gas disposed within said upper and lower chambers of said working chamber based upon said operating condition monitored by said sensor to control damping characteristics of said damper, said pressure control unit operating independently from said valve control unit.

21. (currently amended) A damper comprising:

a pressure tube forming a working chamber;

a pressurized gas disposed within said working chamber;

a first piston disposed within said working chamber;

a second piston disposed within said working chamber, said first and second pistons dividing said working chamber into an upper working chamber, an intermediate working chamber and a lower working chamber;

a first electronic valve for controlling the flow of said gas ~~though~~ through a first passage extending through said first piston, said first passage being the only flow path between said upper working chamber and said intermediate chamber;

a second electronic valve for controlling flow of said gas through a second passage extending through said second piston, said second passage being the only flow path between said lower working chamber and said intermediate chamber;

a valve control unit in electrical communication with said first and second electronic valves, said valve control unit controlling opening and closing of said first and second electronic valves;

a sensor monitoring an operating condition associated with said damper;

a source of pressurized gas in selective communication with said working chamber; and

a pressure control unit in communication with said source of pressurized gas for continuously controlling pressure of said gas disposed within said upper and lower chambers of said working chamber based upon said operating condition monitored by said sensor to control damping characteristics of said damper, said pressure control unit operating independently from said valve control unit.

22. (new) The damper according to Claim 1 wherein said operating condition is a loading of a vehicle associated with said damper.

23. (new) The damper according to Claim 1 wherein said operating condition is a road condition over which a vehicle associated with said damper.

24. (new) The damper according to Claim 1 wherein said operating condition is an acceleration of a vehicle associated with said damper.

25. (new) The damper according to Claim 1 wherein said operating condition is a braking of a vehicle associated with said damper.

26. (new) The damper according to Claim 20 wherein said operating condition is a loading of a vehicle associated with said damper.

27. (new) The damper according to Claim 20 wherein said operating condition is a road condition over which a vehicle associated with said damper.

28. (new) The damper according to Claim 20 wherein said operating condition is an acceleration of a vehicle associated with said damper.

29. (new) The damper according to Claim 20 wherein said operating condition is a braking of a vehicle associated with said damper.

30. (new) The damper according to Claim 21 wherein said operating condition is a loading of a vehicle associated with said damper.

31. (new) The damper according to Claim 21 wherein said operating condition is a road condition over which a vehicle associated with said damper.

32. (new) The damper according to Claim 21 wherein said operating condition is an acceleration of a vehicle associated with said damper.

33. (new) The damper according to Claim 21 wherein said operating condition is a braking of a vehicle associated with said damper.